

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of connecting a client application at a computing device by way of a network access module (NAM) at the computing device to a software server 'server' instantiated on one of a plurality of hardware servers on a cluster 'cluster' having a plurality of servers instantiated thereon, the hardware server being remote from the computing device, the method comprising:

the NAM at the computing device receiving 'cluster' and 'server' from the client application;

the NAM at the computing device sending a first request message to 'cluster' requesting first connection information for connecting to 'server';

the NAM at the computing device receiving from 'cluster' a first reply message containing the requested first connection information;

the NAM at the computing device connecting the client application to 'server' as instantiated on a first hardware server on 'cluster' based on the received first connection information, wherein once connected, the client application and 'server' at the first hardware server may transact business;

~~the NAM at the computing device determining that the connection to 'server' has failed, the cluster 'cluster' having automatically switched processing for 'server' from a first server to a second server when the first server failed but not having provided any fail-over support to the NAM at the computing device to re-direct a request from the client from the failed first server to the working second server, the received first connection information corresponding to the first server;~~

the first hardware server on 'cluster' failing;

'cluster' in response to the failure of the first hardware server automatically switching processing for 'server' from the failed first hardware server to an operating second hardware server on 'cluster' without notifying the NAM at the computing device that 'server' is no longer at the failed first hardware server and has been switched to the second hardware server, the connection of the client application and 'server' thereby being disrupted;

the NAM at the computing device itself discovering that the connection of the client application and 'server' has been disrupted;

the NAM at the computing device upon discovering the disrupted connection sending a second request message to 'cluster' requesting second connection information for connecting to 'server', the requested second connection information corresponding to the second hardware server;

the NAM at the computing device receiving from 'cluster' a second reply message containing the requested second connection information; and

the NAM at the computing device connecting the client application to 'server' as instantiated on the second hardware server on 'cluster' based on the received second connection information, wherein once again connected, the client application and 'server' at the second hardware server may again transact business,

the method further comprising:

the NAM at the computing device caching the received second connection information in a cache at the computing device;

the NAM at the computing device subsequently again receiving 'cluster' and 'server' from the client application;

the NAM at the computing device retrieving the cached connection information from the cache at the computing device;

the NAM at the computing device connecting the client application to 'server' on 'cluster' based on the retrieved cached connection information.

2. (Original) The method of claim 1 comprising sending each request message as a UDP (user datagram protocol) packet addressed to a UDP address of 'cluster'.

3. (Original) The method of claim 1 comprising receiving each requested connection information including an address of 'cluster' on which 'server' is listening.

4. (Original) The method of claim 1 comprising receiving each requested connection information including an address of 'cluster' on which 'server' is listening for packets formatted according to a VIA (Virtual Interface Architecture) protocol.

5. (Original) The method of claim 1 comprising receiving each requested connection information including each address of 'cluster' on which 'server' is listening and a corresponding protocol associated with the address by 'server'.

6. (Original) The method of claim 1 comprising connecting the client application to 'server' on 'cluster' at an address of 'cluster' on which 'server' is listening for packets formatted according to a VIA (Virtual Interface Architecture) protocol.

7. (Canceled)

8. (Previously Presented) The method of claim 1 further comprising:

the NAM at the computing device determining whether the connected-to server is in fact 'server' and if not:

the NAM at the computing device sending a new request message to 'cluster' requesting new connection information for connecting to 'server';

the NAM at the computing device receiving from 'cluster' a new reply message containing the requested new connection information; and

the NAM at the computing device connecting the client application to 'server' on 'cluster' based on the received new connection information.

9. (Currently Amended) A computer-readable medium having stored thereon computer-executable instructions implementing a method of connecting a client application at a computing device by way of a network access module (NAM) at the computing device to a software server 'server' instantiated on one of a plurality of hardware servers on a cluster 'cluster' ~~having a plurality of servers instantiated thereon~~, the hardware server being remote from the computing device, the method comprising:

the NAM at the computing device receiving 'cluster' and 'server' from the client application;

the NAM at the computing device sending a first request message to 'cluster' requesting first connection information for connecting to 'server';

the NAM at the computing device receiving from 'cluster' a first reply message containing the requested first connection information;

the NAM at the computing device connecting the client application to 'server' as instantiated on a first hardware server on 'cluster' based on the received first connection information, wherein once connected, the client application and 'server' at the first hardware server may transact business;

~~the NAM at the computing device determining that the connection to 'server' has failed, the cluster 'cluster' having automatically switched processing for 'server' from a first server to a second server when the first server failed but not having provided any fail-over support to the NAM at the computing device to re-direct a request from the client from the failed first server to the working second server, the received first connection information corresponding to the first server;~~

the first hardware server on 'cluster' failing;

'cluster' in response to the failure of the first hardware server automatically switching processing for 'server' from the failed first hardware server to an operating second hardware server on 'cluster' without notifying the NAM at the computing device that 'server' is no longer at the failed first hardware server and has been switched to the second hardware server, the connection of the client application and 'server' thereby being disrupted;

the NAM at the computing device itself discovering that the connection of the client application and 'server' has been disrupted;

the NAM at the computing device upon discovering the disrupted connection sending a second request message to 'cluster' requesting second connection information for connecting to 'server', the requested second connection information corresponding to the second hardware server;

the NAM at the computing device receiving from 'cluster' a second reply message containing the requested second connection information; and

the NAM at the computing device connecting the client application to 'server' as instantiated on the second hardware server on 'cluster' based on the received second connection information, wherein once again connected, the client application and 'server' at the second hardware server may again transact business,

the method further comprising:

the NAM at the computing device caching the received second connection information in a cache at the computing device;

the NAM at the computing device subsequently again receiving 'cluster' and 'server' from the client application;

the NAM at the computing device retrieving the cached connection information from the cache at the computing device;

the NAM at the computing device connecting the client application to 'server' on 'cluster' based on the retrieved cached connection information.

10. (Original) The medium of claim 9 wherein the method comprises sending each request message as a UDP (user datagram protocol) packet addressed to a UDP address of 'cluster'.

11. (Original) The medium of claim 9 wherein the method comprises receiving each requested connection information including an address of 'cluster' on which 'server' is listening.

12. (Original) The medium of claim 9 wherein the method comprises receiving each requested connection information including an address of 'cluster' on which 'server' is listening for packets formatted according to a VIA (Virtual Interface Architecture) protocol.

13. (Original) The medium of claim 9 wherein the method comprises receiving each requested connection information including each address of 'cluster' on which 'server' is listening and a corresponding protocol associated with the address by 'server'.

14. (Original) The medium of claim 9 wherein the method comprises connecting the client application to 'server' on 'cluster' at an address of 'cluster' on which 'server' is listening for packets formatted according to a VIA (Virtual Interface Architecture) protocol.

15. (Canceled)

16. (Previously Presented) The medium of claim 9 wherein the method further comprises:

the NAM at the computing device determining whether the connected-to server is in fact 'server' and if not:

the NAM at the computing device sending a new request message to 'cluster' requesting new connection information for connecting to 'server';

the NAM at the computing device receiving from 'cluster' a new reply message containing the requested new connection information; and

the NAM at the computing device connecting the client application to 'server' on 'cluster' based on the received new connection information.